

THE SIERRA CLUB BULLETIN.

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NO. I.

THE MT. WHITNEY TRAIL.

BY HUBERT DYER.

It is astonishing to learn how many Californians are ignorant of the fact that their State possesses the highest mountain peak in the United States; and, where one fails to know this, one thousand are ignorant of that unexplored wilderness of Alps, of which Mount Whitney, 14,522 feet high, is the culminating point; and yet, from the top of the mountain, the station buildings on the little Carson and Colorado Railroad, which runs south of Mound City and taps the Inyo quarries and the soda works of Owens Lake, are in plain view. These buildings are less than twenty miles distant. To one standing near these structures the stupendous mass of the Sierras seems hanging over them and the summit of Whitney but a little way off. Yet it is about seventy miles by the shortest trail to the summit. There are stories told of men who have climbed the great eastern face. Though possible, it is a dangerous undertaking. The usual way of reaching the top is to climb up the southwestern face, which is a gradual slope, offering no obstacles. In this case the problem is how to find the peak, because to reach this vantage point a long detour to the south is absolutely necessary, and that means a week's wanderings in an almost trackless wilderness; consequently any one wishing to ascend this peak must be prepared for the roughest kind of mountain work. But it is worth the trouble.

The trip is usually made from either Lone Pine, Owens Valley; or Visalia, San Joaquin Valley. Lone Pine was the center of the great earthquake of 1872, and even to-day the great earth fissure is conspicuous. From this dirty, run-down town the route to Whitney follows the main wagon road south to the point of the Kearsarge Hills, and then passes over the Sierras by the Hockett trail, passable by good horses only. The Hockett trail was made in early days, and to-day it remains a plain, well-blazed track from Lone Pine through to Visalia. After leaving the plains below Lone Pine this trail rapidly climbs the dreaded Hockett Hill. All travelers try so to arrange their journey that this hill is climbed either in early morning or late in the afternoon. The real hill begins where the desert sloping up from Owens Lake meets the main mountain wall. Here a stream from the snow higher up has made a feeble growth of shrubby trees which mark the last shade and water for a long time. Unfortunately, the desert clings to the mountain, so the trail is sandy and warm, and withal a mountain's steepness.

The view from the trail, however, is magnificent. Far below is the narrow Inyo Valley stretching away to the north till blocked by the Fish Springs lava-flow, which crowds the river over against the White Mountains, a sublimely desolate range, ranking almost with the Sierras in elevation. The river then returns to the valley floor, and fifty miles south empties into the alkaline lake which lies at the traveler's feet. The White Mountains maintain their elevation along the Owens River Valley for one hundred and twenty miles, so the valley is but a thread of land sunk in a trench 10,000 feet deep. The mountains weaken opposite the lake and allow a glimpse towards Death Valley and the terrible triangle of lower Nevada, the Devil's Play-ground.

The traveler will turn on the trail scores of times to look back. If it is in the late afternoon he may see the sun set,

or, rather, see the great Sierra shadow rush across the narrow desert, and, climbing the mountain-side, pause an instant as the last light gleams one hundred miles along the Inyo Peaks. Resuming the climb, he will note how bravely the desert vegetation maintains its life to the very edge of the Alpine flora. And just as the pines begin to come in more and an occasional patch of snow is seen on the highest ridges (July) the trail will make a little drop and halt before a small stream, the first water since leaving the bottom. This is Little Cottonwood.

Here the trail branches, and there are two routes to Big Cottonwood, two or three miles further on. Both routes are plain. The one following up the east bank of the stream leads over a low divide between Little and Big Cottonwood, and brings one finally to the last-named. Here is an ideal camp; wood, water, grass, and trout are in plenty. The wonderful golden trout of the Sierras are here in overwhelming abundance. It is no exaggeration to say that the poorest angler can here at almost any time of day catch strings which would drive the frequenter of local streams wild.

The headwaters of Big Cottonwood lie in a magnificent glacial cirque, about six miles south of Sheep Mountain, and it is an interesting side trip to follow the stream to its source—the snow-drifts which cling to the lofty walls of the basin. This cirque presents undoubted signs of glacial action; its form is typical, and, besides, the granite bottom is strongly scarred and polished in the manner so noticeable in the Tuolumne region. It is particularly interesting because it is one of the most, if not the most southern of glacial evidences in the Sierras.

From Cottonwood the Hockett trail, always well marked by travel and peculiar blazes, crosses the Horseshoe Meadows, known by sawmill depredations on the adjacent ridges, and surmounts the watershed at an elevation of 11,000 feet. The trail has now entered the great valley of

the Kern river, but only on its remote edges. Whitney is but another point similarly situated on the eastern edge, while Tyndall, Brewer, and Kaweah are located respectively at the northeastern, northwestern, and southwestern corners of this great valley, which opens southward.

From the summit of the watershed the trail traverses the famous Mulkey Meadows, named after a widely-known Sheriff of early days, and soon strikes the trickling source of the south fork of Kern river. It clings closely to its northern bank for a few miles and then comes out upon a narrow tongue of land, apparently a moraine, lying between two streams, branches of the south and north forks of the Kern, not more than three hundred feet apart.

This narrow, stream-bordered dike is the great landmark for all Whitney travelers, as here the Whitney trail leaves the Hockett. This branching place is again indicated by a tunnel under the dike which transfers the northern stream almost wholly into the southern. The traveler approaching the forks (Tunnel forks) from either direction will notice the sudden increase in volume of the southerly stream. At the exact forking is a large cross blazed on a pine tree by the writer's party in 1890. At this point a small stream comes in from the north, and it is up the eastern side of this stream, Whitney creek, by some also called Volcano creek, that the trail to the peak runs. A further sign of the right trail is that it loosely follows an old ditch which originally diverted the water, as is now done by the tunnel. This work was done by irrigators in the San Joaquin Valley, a hundred miles away, to give the south fork more water, and it is a curious instance of the union of two drainage basins whose natural outlets are miles apart.

Tunnel forks may also be reached from Visalia over the Hockett trail. About a mile below the tunnel the trail forks. The northern branch passes over the north fork, and on to the Visalia region; the southern follows the south fork. At the crossing of the north fork is Kern Lake; a

natural dam, formed by an earthquake landslide, backs up the water of the river and forms quite a lake. Here lives Old Dick, a widely-known character in this country, who makes a business of catering to the valley people who frequent the lake. He will even provide board at a reasonable rate, and, as there are perhaps few places in the State where one can enjoy such fishing, it deserves to be better known. Moreover, it is at the gateway of the Whitney Alps, a two days' ride bringing one to the base of the peak. Dick's is about ninety miles from Visalia, and, being located on a well-traveled trail, is easy to reach.

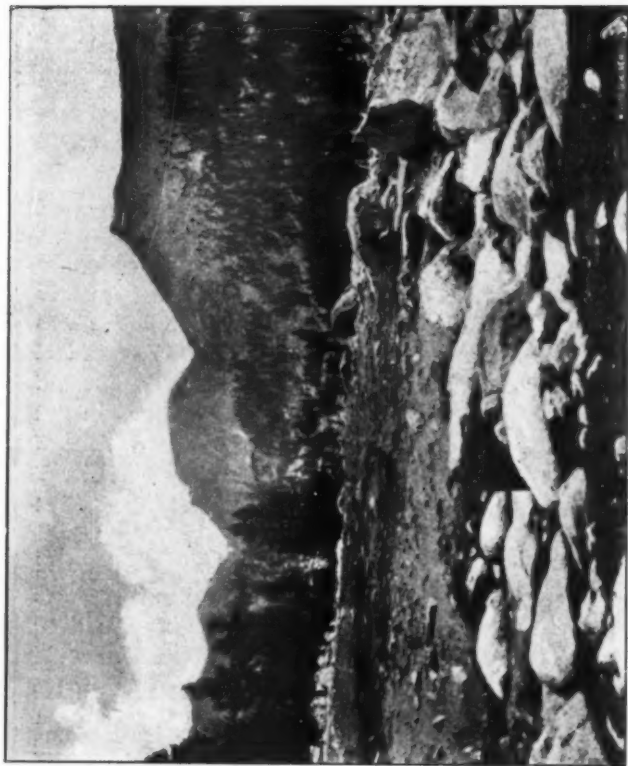
Whichever way the traveler reaches Tunnel forks the route thenceforward is the same. A party in 1889 attempting to reach the mountain by following up the main bed of the north fork, besides having a very difficult trip, went far beyond the peak and had much trouble in finding it. In fact, they only did so after mistakenly climbing up another mountain only to be dismayed by seeing Whitney overtop them. It is therefore best, if Mount Whitney alone is your aim, to go to Tunnel forks, and from there follow the usual route. Unfortunately, the so-called Whitney creek *does not head* at Mount Whitney, but at Sheep Mountain, or Old Mount Whitney. The name was given to it during those years when Sheep Mountain was in error known as Mount Whitney, and when it was even down on the maps as such. When the error was found out and the name applied to the mountain now bearing it, and to which it had been originally given, the creek's name was unchanged, and it remains Whitney creek and Whitney Meadows to this day. Inasmuch as the name Whitney creek is now applied to the stream which actually drains that peak, it might be advisable to use the name Volcano creek for the false Whitney creek. Like Big Cottonwood, Volcano creek is full of the wonderful golden trout. It is at this last point that the greatest confusion is liable to arise, and unless the traveler is so

fortunate as to meet a cattleman—not sheepman, because they seldom speak English—he had better hire a guide. It would be cheaper in the end. Unlike the Sierras about Dana and Lyell, the mountains about this trail all look alike, and it seems like an endless succession of “sand meadows,” rocky flats and thinly-wooded ridges. It is only when the immediate base of the mountain is reached that the topographical features become more pronounced.

Leaving Tunnel forks, one follows up Whitney creek for five or six miles, and finally reaches the Whitney Meadows. Here begins a great gap in the trail; it is wholly blind. The writer's party avoided trouble here, because we had some days before secured a bird's-eye view of the whole country, and because we had been given a few pointers by an obliging cattleman. Upon reaching these meadows one must proceed up the north side of the indistinct stream by two or three small cañons coming in from the north, till an old sheep-corral is reached, when he must go directly up the ridges to an elevated rock-strewn plateau. If by chance one passes too far up the meadow and then cuts up the mountain-side the mistake will correct itself, as a deep, precipitous cañon will be encountered, which compels a detour to the left (west). This brings one naturally to the rocky plateau. The mountain seen a little to the east of north is not, as one is likely to suppose, Mt. Whitney, but Sheep Mountain or Mt. Corcoran. Its appearance is shown in the accompanying illustration (No. 1.). From the plateau there is seen four or five miles to the north-west a low gap through a long wooded ridge; the trail for Mt. Whitney runs through it. Descending from the plateau to a sandy meadow below, one notices a stream flowing to the west, and after following its left (south) bank a few yards a plain trail will be found. This trail crosses to the north bank after a few hundred yards and then follows it down to a place of moraines, where confusion is confounded. Here the trail will probably be lost, but by



No. 1.—MT. CARGOAN, SHEEP MOUNTAIN, FAIR MT. WHITEY.



No. 2.—Mt. Whitney.

maintaining a general route toward the low wooded pass one will soon meet a stream flowing to the west, which washes the foot of the mountain sloping up to the pass. Crossing this stream near an old ruined sheep-corral, and searching the immediate mountain slope, one will find a blaze consisting of this: PIEB. This marks the beginning of the Whitney trail which passes through the gap above. Beyond this it continues northward through a sparsely wooded country till it descends from a ridge through a rock slide, down which it goes zig-zag into Whitney cañon proper. It then follows up a narrow sub-cañon to the east till it reaches a round, rock-walled meadow, traversed by two streams which meet in its lower edge; the larger one, entering from the north through a narrow gully, drains Mount Whitney, and the trail follows up its northern bank, through an open cañon, through a half-burned forest, to a little lake, between whose northern shore and the mountain-wall it finds a narrow course. The illustration (No. 2) shows the true Mount Whitney as it appears from a point on the northern bank of the creek.

The rocky face of Mount Whitney is seen standing a little to the right (south) of the end of the cañon. Its face presents a broad, shovel-shaped front, thickly studded with granite spires. The famous mountain seems very small and low from the west. Beyond the little lake the first objective is Langley's Camp, which marks the very base of the mountain, and as the trail for the top starts here, and as it is the last camping-place, the traveler will do well to find it. The trail has now run out in the granite and one must depend on general features. Not very far above the lake the cañon forks, and Whitney stands midway; Langley's Camp lies immediately underneath the mountain and but a little way to the right. It *cannot* be seen *from below*, though the eye may pass over it a thousand times, as it is on a granite shelf set deep in the mountain-side. But a short way below it, and right under Whitney's face, is another meadow, with a

little pond at its south side. This is a good camp also, but it is not distinctive enough to mark the mountain, so one had better find Langley's Camp, which lies but a few hundred yards away and above to the southeast. From this lower meadow there is no indication of one higher up beyond a seemingly small depression in the granite, but by climbing up to it one is surprised to find an extensive flat with many signs of its previous occupation by some large party. Chief among these signs is a low wooden trestle, four hundred feet long, extending exactly north and south. This is what is left of the bolometer, an elaborate apparatus for measuring variations in the heat given out by the sun.

One will thus have no trouble in recognizing the meadow, and, once reached, all trouble is over, as the trail from here to the top—three thousand feet above—is plain and easy to climb. At the top there is a cairn six feet high, with its interstices filled with cans and papers. From here one looks down on Lone Pine, fifteen miles distant and 11,000 feet below. The whole Inyo Valley, the White Mountains beyond, Owens Lake, are all in plain view. Mount Tyndall, to the north a few miles, stands at the junction of the main Sierra crest and the Tyndall-Brewer divide, which separates the basin of the Kern from the south fork of the Kings River, or locally, Bubb's Creek. Mount Brewer stands at the western end of this divide, where it joins the great western ridge which culminates to the south in Kaweah Peak. Far to the north of Tyndall one can just see the high peak marking the celebrated Kearsarge Pass, 12,050 feet high. Olancha, a dark-red, volcanic-looking mountain, is to the south beyond Sheep Mountain and beyond the Hockett trail. Sheep Mountain and Kaweah seem to be the two last true Sierra peaks, as Olancha resembles more a volcanic cone than a granite mountain. If one remembers that all the mountains named are over 13,000 feet, and that they are but one or two among hundreds of others almost as high, he may be able feebly to imagine the matchless grandeur of the scene.

THE GRAND CAÑON OF THE TUOLUMNE.

BY R. M. PRICE.

It was thought that a simple description of a trip from Soda Springs, in the Tuolumne Meadows, down through the grand cañon of the Tuolumne to Hetch Hetchy Valley, might prove interesting to the members of the SIERRA CLUB. The reader regrets, however, that his lack of geological and botanical knowledge renders it impossible for him to make this paper a scientific one, or anything more than a simple description, for this region presents a most interesting and fruitful field of study for both geologist and botanist. He trusts that the novel manner of traveling in the Sierras pursued by his companion and himself, and the fact that, up to the past summer, but *one* man had gone *through* the cañon may make this of some interest.*

In the middle of July, a fellow-member of the SIERRA CLUB, Mr. L. de F. Bartlett and myself, loaded down under rolls of blankets and knapsacks and haversacks containing our provisions, walked from Berenda, on the Southern Pacific, to Wawona, on the stage-road, thence on a trail by the way of Chilnooilny creek and Givens' Ridge to Yosemite Valley, coming in by Glacier Point. Leaving the Valley July 27th, we struck out for the Tuolumne Meadows; but here work began, for a party to whom we had written to pack forty or fifty pounds of provisions* to Soda Springs for us, had failed to get our message, and we were obliged to load ourselves down

* Since reading the above paper the writer has learned that Mr. J. M. Hutchings, the first guardian of Yosemite Valley, ascended Mount Ritter, and in 1875, descended the grand cañon of the Tuolumne.

under packs weighing about forty-five pounds each,—no small weight to carry at an altitude of 10,000 feet. Our path lay over the old Mono trail by the way of Nevada Falls, Clouds' Rest and Cathedral Peak to the springs. From the Soda Springs, with six days' rations, we proceeded to Mounts Maclure and Ritter, which we ascended. This latter peak, over 13,000 feet high, and one of the most striking and sublime of the Sierras, has been ascended, as far as is known, but four times,—in the seventies by the President of this Club, Mr. Muir; in 1883, by Mr. Willard D. Johnson, at that time a topographer in the United States Geological Survey; on July 26th of this last summer by a party consisting of Messrs. Joseph LeConte, Jr., Theodore Solomons, and Sidney Peixotto; and on August 2d by our own small party.

We returned from Mount Ritter to Soda Springs, and after a run up that prime triangulation point of the United States Coast and Geodetic Survey, Mount Conness, prepared to descend through the Tuolumne cañon to Hetch Hetchy, notwithstanding statements of Clarence King and others that the cañon was impassable. In Professor Whitney's reports of the geological survey of California may be found this statement: "The river enters a cañon, which is about twenty miles long, and probably inaccessible through its entire length, at least we have never heard of its being explored, and it certainly cannot be entered from its head. Mr. King followed this cañon down as far as he could, to where the river precipitated itself down in a grand fall over a mass of rocks, so rounded on the edge, that it was *impossible* to approach near enough to look over into the chasm below, the walls on each side being too steep to be climbed." Our President, Mr. John Muir, was the only man who had passed entirely through the cañon up to the time when we made the descent. He had given us general directions how to proceed, and he had ended with the caution not to load ourselves down with blankets and pro-

visions. This caution circumstances rendered it impossible to observe. We had hoped to find Mr. Lambert at his cabin at Soda Springs and engage him to pack our blankets and knapsacks to the Hetch Hetchy, or the Hog Ranch near Hetch Hetchy, so that we might not have to carry with us more than food enough for three or four days; but, on returning to the springs from Mount Conness, we found Lambert's place still deserted. The next morning came, but still no Lambert. Our time and food were so limited that we must either start immediately or give up the cañon altogether. To give it up would be a great disappointment, and, with our loads, unfortunately now not heavy with food, to attempt the descent of the cañon was not particularly inviting. Our provisions now consisted of a little bacon, six or seven pounds of flour, a cup of rice, sugar, a handful of cracked wheat, and a little tea and coffee. Anywhere in the immediate neighborhood of the appetites of two SIERRA CLUB tramps such a small quantity of food would not last long, and we were apprehensive lest it should give out before we could get through the cañon. But, stimulated by a desire for adventure and an eagerness to see the wonders of the cañon which had been described to us by Mr. Muir, we carefully packed our knapsacks, worked up our courage to the highest point, and started.

The grand cañon of the Tuolumne lies about fifteen miles due north of Yosemite and extends twenty miles in a westerly direction. During the glacial period a great glacier, probably one thousand feet thick, swept down from its sources around Lyell, Maclure, Dana, and Conness. Divided by Mount Hoffman and contiguous rocks to the east, part of this great glacier passed to the left grinding out the Tenaya cañon, and joining the larger glacier at work in Yosemite; the other and larger part passed to the right, eroding the Tuolumne cañon. The effects of this glacier as a polishing agent, notwithstanding the action of water and atmospheric agents of disintegration for ages, are still visible

on the hard granite. In many places on the walls the polished granite reflects the sun like a mirror. The Tuolumne river, a stream nearly equal in size to the Merced, which flows through the Yosemite Valley, has its sources in the remnants of that glacial monster which cut out the cañon. Its bounding waters gradually quiet themselves in the Tuolumne Meadows to a placid stream, gathering force for their grand plunge into the cañon. Here, not peacefully, but bounding over precipices, dashing and foaming in numberless cascades, and plunging through sheer walled gorges, the stream threads its way through. Now and then it glides quietly through a diminutive meadow or rests in a crystal pool, as if it were accumulating energy for a fresh rush and plunge over the rocks. At the foot of the cliffs are great piles of talus, composed of huge boulders, probably loosened and thrown down from the cliffs above by some terrific post-glacial earthquake. At places there are immense boulders in the current of the stream, their rounded edges and polished surfaces evidencing a rolling, bounding, grinding down the river-bed, where they are now waiting for a heavy flood to start them again in their tumble down the cañon.

One mile of pleasant walking from the Soda Springs brought us to the head of the cañon; four more of easy clambering down the rocks by the Upper Falls and White Rapids and we reached the confluence of the Virginia creek entering from the north, and then we "struck it rough;" huge boulders to clamber over, almost impenetrable manzanita and chaparral to push our way through, and slippery, water-polished and glacier-polished rocks to scramble over. The roughness of the trip had not been exaggerated, but the beauty and grandeur of the falls and cascades, the sublimity of the cliffs, and the loveliness of the verdure in the cañon, fully repaid us for the hard work. When we stopped for lunch, a deep pool of crystal water attracted us, and we prepared to enjoy a refreshing dive and swim; but

one plunge into that icy fluid was enough. Proceeding a short distance down the cañon from the place where we had lunched we came to a rocky spur jutting down to the river's edge. Seeing that it would be almost impossible, if not entirely so, to pass around the point, we decided to attempt to clamber over it. After hard climbing we reached the top, only to find that the other side was almost perpendicular. This was probably the obstacle which had blocked Mr. King's further advance. Half way down, holding a small manzanita bush, was a narrow shelf to which a number of crevices led from the top of the spur. Twenty feet from the shelf, the talus reached to the perpendicular face of the rock. We must either descend or retrace our steps, to find in all probability no better place. Holding on with the ends of our fingers in a crevice of the rock we gradually worked our way down to the shelf, then, laying aside my knapsack, I tied the rope provided for such an emergency to my waist, and my companion having taken a twist around the manzanita bush, lowered me to the talus; next the knapsacks were lowered, and, finally, Bartlett fastened the rope to himself, took a twist about the bush and threw the other end to me. He then swung himself off the shelf, and, as I slowly payed out the rope, descended to my side. This was the first use we had made of our rope. Several times we had been sarcastically asked if we were going to lasso deer with it, and more than once we had been on the point of throwing it away; but were restrained from doing so by the thought that an emergency might come in which it would be useful.

Continuous scrambling from three o'clock in the afternoon till half-past six did not take us more than one and one-half miles down the cañon. Approaching night and a large, unnamed tributary coming in from the north across our path stopped our progress for the day, and, after as hearty a meal as our scant stock of provisions would permit, we

spread our blankets and were sung to sleep by the music of the cascades.

The falls and cascades of the Tuolumne cañon are less majestic than some of the falls in the Yosemite, but they far excel those in Yosemite in variety of form and beauty, and they impress one much more forcibly with a feeling of their power. The peculiarities of several cascades struck us particularly. At one point the entire river, beaten into foam, rushes down a broad, polished surface of rock inclined at an angle of about forty-five degrees. It is the Silver Apron of the Merced, between Vernal and Nevada Falls, reproduced on a much grander scale. At another point a depression in the rock caused the water of a cascade to be thrown vertically in the air in the form of and resembling an open feather fan.

On the second morning, after such a sleep as only tired trampers enjoy in the crisp air of the mountains with naught but the star-lit sky for a tent, we crossed the before-mentioned tributary, jumping from rock to rock, stimulated by the feeling that, unless we were careful, we might take an undesired tumble in the water and roll among the boulders. The water-falls and cascades seen this day, with the exception of one, did not equal those seen on the previous day, but the verdure was becoming more luxuriant and the cliffs more sublime. This one cascade was another Silver Apron, even more beautiful and impressive than the one above described. An ideal camping-spot attracted our attention. It was a level place, shaded by a dense grove of giant cedars and yellow pines, carpeted by a thick mat of pine needles and ferns, close to where the river for a short distance rippled musically along. Late in the afternoon we reached the sheer walled gorge which Mr. Muir had told us we would find about half-way down the cañon. A glance showed the uselessness of attempting to continue near the bed of the river, so we took to the hills, clambered over a ridge about twelve hundred feet high, and at dark reached

the river again just below the gorge. Here we found no ideal camping-spot, but, on the contrary, we had to be content with a bed of rocks inclined at a rather steep angle. How we wished that we could have made practical use of the camping-spot seen during the day. But after a few weeks' experience a Sierra trumper can sleep anywhere, and the next morning, notwithstanding our inhospitable berth, we arose refreshed and ready for more hard work.

Looking back from some rising rocks a short distance below where we had camped, we could see a perfect amphitheater, walled in by cliffs from two thousand to three thousand feet high, apparently without a break, so that we could not distinguish where the river entered. It was a most imposing view. But time was precious and we could not linger long. Just before noon, while leading the way, I attempted to make a long jump from one boulder to another, between which lay a deep passage. Unfortunately, just as I leaped my pack overbalanced me. I reached the boulder, but all in a heap and with a sprained ankle. To say the least, the prospect was not encouraging,—eight or nine miles of the roughest mountain scrambling before any food could be obtained. But necessity overcomes many obstacles. My companion bound my ankle tightly with a bandana handkerchief, and I managed to limp painfully along. Our fingers were sore and bleeding from holding on to the rocks, our provisions would not last more than two days longer, and my ankle might at any time bring me to a dead stop; that our spirits were depressed it is needless to say. But as night approached we came to a strip of meadow which we thought must be but a short distance from Hetch Hetchy, and we spread our blankets with the consoling thought that early on the morrow we would reach the valley.

The next day was one of continual disappointments. As we passed each projecting ridge we looked ahead expectantly to see that massive pile of rock in Hetch Hetchy, Sugar

Loaf, loom up before us, but no Sugar Loaf appeared. Though we had not seen a human being for ten days we were not without company,—gnats, mosquitos, flies, several varieties of ants, rattlesnakes, deer, and bear were about us in abundance. No bear were visible, but there was unmistakable evidence of the presence of numbers of them. We followed their trails for miles down the cañon as plainly as if they had been made by a troop of cavalry. The noise of our tramping through the brush gave them an opportunity of hiding before they could be seen. Rattlesnakes were especially numerous, and we felt it to be a moral obligation to kill them whenever they crossed our path. At one time we were just about to spring on a boulder, when, on the exact spot where we intended to jump, we saw a large rattler coiled ready to spring. We disposed of Mr. Rattler before jumping. Several times this day we were obliged to use our rope in getting over difficult places. Late in the afternoon of the fourth day we concluded that we must be near Hetch Hetchy, and this time we were not disappointed, for Sugar Loaf came into view, and we knew that the valley was but a few miles below.

A few hours of comparatively easy walking, the next morning, and we had concluded our tramp through the grand cañon of the Tuolumne, glad that we were through with that kind of tramping, yet sorry to leave behind us the wonders of the cañon, which the roughness and difficulties of the trip had prevented us from fully enjoying.

DESCRIPTION OF A NEW GROVE OF SEQUOIA GIGANTEA.*

BY WILLIAM W. PRICE.

For some years prior to 1891, Mr. C. F. Hoffmann, Superintendent of the Red Point mine on the Forest Hill divide, had heard rumors of a grove of gigantic trees, situated some twenty miles southeast of that place. In 1891, definite information of this grove came to him through Mr. Thomas Ferguson and a Mr. McCall, both of whom had visited the grove. They, however, could not identify the trees as anything they had seen, and, unfortunately, had failed to bring any leaves and bark, so that the species still remained unknown. In that year I heard of the grove through Miss Irene Hardy of Oakland, who had spent the summer at Red Point, but I only learned that they were great trees, somewhat like cedars, and in a secluded part of the mountains.

It was my good fortune to spend the past summer at Red Point, and on the 20th of June, at the urgent request of Mr. Hoffmann, I started in company with his son, Karl Hoffmann, to visit the grove. We crossed Eldorado cañon and followed down the Deadwood ridge until we came to a trail going to Last Chance, an old mining camp, where we could gain definite information concerning the grove. We reached the settlement in the afternoon, and, from what we heard of the trees and of the nature of the country about them, we concluded that it would be useless to go without a guide. We were fortunate in having the assistance of Mr. Thomas

* A meager description of this grove was read at my request, by Mr. Walter E. Bryant, before the California Academy of Sciences on August 1, 1892. It was afterwards published in "*Zoe*," Vol. III, 2, p. 132.

Ferguson, a young miner at Last Chance, who had visited the grove some years before, and knew all the country. We left under his guidance early on the morning of the 21st, and were soon traveling a dim forest trail.

For six miles this trail twisted its serpentine course through continuous woods. It was not a deep, damp forest, like the redwoods, with rank undergrowth, but rather free of brush, except in places, and with trees of more uniform size. A thick layer of pine needles carpeted the ground, in many places obliterating the trail. The trees were chiefly sugar pine, fir, spruce and yellow pine. Cedars were common in the ravines and in the damper portions of the woods. The undergrowth varied with the nature of the country, but was chiefly of two or three species of *Ceanothus*. In places, forming soft mats upon the earth, was the delicate "deer grass," *Ceanothus prostratus*. Some beds had pink blossoms, others were of a yellow color. Several liliaceous plants and a few composites were the most conspicuous flowers. The altitude the most part of the way was above 5000 feet, and we seemed to be on the upper edge of the oak belt, for only a few dwarf trees were seen of that genus.

It might be of interest to members of the SIERRA CLUB to learn that through all this beautiful forest I saw only one felled tree. The miner and the shake-maker had never been here. The sheep-herder is also a stranger, but the woods furnish a summer-range for a scanty band of cattle owned by a small stockman.

The heavy growth of trees closed thickly about us, so that only occasionally could we gain glimpses of the surrounding country. Once, westward, through a cañon-gap, we saw the washed-out diggings at Michigan Bluff and Forest Hill, and again, on a mound in the forest, we caught sight of the snowy slopes of Pyramid Peak and other mountains bordering Lake Tahoe, away to the eastward.

On this mound the guide left us and proceeded alone.

He came back shortly with the welcome news that he had found the trees. We followed him some half-mile down the even slope, until we came to a damp depression in the woods, and there, among various other trees, we saw the red trunks of a species which proved to be *Sequoia gigantea*. Unfortunately, we were compelled to make ~~our~~ visit a brief one, and, after roughly measuring some of the larger trunks and taking a few notes, we returned to Red Point, hoping in the near future to make a more extended stay, and to get the correct measurements, with the altitude of the place.

On August 18th, in company with Mr. Fred Schneider of Red Point, I was again able to visit the grove. This time, supplied with aneroid, clinometer, and tape-line, I succeeded in taking the necessary measurements and observations for a more detailed description.

Our route from the Red Point mine was the same as that on the previous visit. We passed the little old mining-camp of Last Chance, with its half-dozen old mines, the sole survivors of prosperous days, and, trending to the southeast, were soon threading the narrow trail through the primeval woods. Near evening we rode down to the grove, which is situated in a small depression, walled in by ridges densely timbered. It was then too late to do any investigating, and, as there was no grass, and as our horses scenting wild animals, could not be kept in the brush, we concluded to ride back on the trail to a small meadow, to camp for the night. We were miles from any town or frequented road and wild animals were abundant. At short intervals, through the woods, we came upon the tracks of deer, bear, and California lions. During the night we heard deer stalking through the crisp meadow grass; our horses, too, by their restlessness, must have heard larger game.

Shortly after sunrise the next morning we were again at the trees. Our first work was to search carefully about to find any outlying trees, if such there were. None could be discovered, and, in all probability, the six standing trees

are all that remain of the North Grove of *Sequoia gigantea*. A small stream courses through the damp, moss-grown cañon, for the most part flowing underground in the burrows of that curious little rodent, *Aplodontia major* of the scientist, and "mountain beaver" of the miner.

The location of this grove is in southern Placer county, on a stream flowing into the middle fork of the American river at an altitude of 5100 feet, and nearly seventy miles north of the Calaveras Big Trees. This grove has long been known to the people in this section of the county, as is proved by the various dates—from 1860 to 1890—cut into the bark of alders growing along the stream; and the wonder is, how it came to be unknown to the botanist for such a long time.

Of the six standing trees, only two are of any great size, and these are not larger than some sugar pines. The largest tree in the grove, the one farthest to the south, is about one hundred and fifty yards from the group of four smaller trees on the north side of the creek. This tree is in a good state of preservation, with the exception of a slight burnt area at the base. It is thirty-three feet in circumference, four feet from the ground, and, taking account of the burn, it is close to twelve feet in diameter. Its height by the clinometer is two hundred and twenty feet. The other large tree, growing close to the creek, is the most beautiful in the grove. Ten feet in diameter, four feet from the ground, it rises, in a perfectly symmetrical column, to a height of two hundred and forty feet. The four other trees stand close together on the north side of the ravine. They are about one hundred and eighty feet high and three feet in diameter. One of the smaller trees has long been the play-ground of bears, as the whole trunk is scratched and scarred by their continued frolics. They had been there the night before, as we conjectured from the tracks on the ground and the freshly-torn bark. One fellow had climbed up fully seventy-five feet, leaving long strips of

bark to mark his progress. On one tree the date 1890 had been cut deep into the bark; with curious instinct, it seemed, a bear had deliberately tried to scratch it out, to remove, as it were, all traces of man from his favorite haunt.

Of the fallen trees, only one of any great size remains. This was standing, as I learned, in 1885, but no one knew when it fell. The heart is still sound, but the bark and sapwood are fast rotting away. It had been blown up by the roots by the severe winds which in winter sweep over the mountains. At the roots this trunk was twenty feet in diameter, but it was not over two hundred feet long, as the top had been broken off previous to its fall. A few other small trunks lie on the north side of the creek. I was told that in 1855, when the old miner, Joe Matlock, first found this grove, a large tree, twenty-eight feet in diameter, was standing. It was dead, however, and blew down in a storm in the fall of that year. For twenty years it was the wonder of all the miners in the mountains round. But this trunk has probably disappeared in the fierce fires that have raged through the forests; we could not find a trace of it, but probably some parts still remain in the dense brush thickets which we could scarcely penetrate.

Among the forest trees growing thickly about the grove are the sugar pine, yellow pine, spruce, fir, and cedar. The fir and cedar trees are strangely and beautifully draped in long, green moss. A dense undergrowth, composed chiefly of two species of *Ceanothus rhododendron*, dogwood, young alders and thimbleberry, fill the spaces about the trees. In some places the ground is thickly covered with that delicate and beautiful plant, the wild cranberry, *Vaccinium occidentale*. I saw the stems of this species scattered thickly about the burrows of the mountain beaver.

Small animal life was comparatively rare about the trees. I noticed only a few chipmunks sporting over the trunks,

and a solitary gray squirrel. Birds, too, were surprisingly scarce; the inevitable jay, one red-tailed hawk and a few snowbirds make up the list.

This grove is of interest chiefly as being north of the Calaveras Big Trees, the hitherto most northern group; but it is likely that as the country is more thoroughly explored, scientifically, other scattering trees will be found still further to the northward. I have heard rumors to the effect that trees of this genus exist in the mountains of Butte county, and it is not at all improbable. In the Sierra Nevada, south-east of Fresno, the Big Trees are found in large forests, and hundreds of acres are being cut for lumber.

To the Sierra trampler who may pass through Placer county with the Big Trees in view, a few words of information might not come amiss. It is almost impossible for a stranger to find the grove. The best plan would be to go to Michigan Bluff, which is about fifteen miles west of the trees, and procure a guide. From there the round trip can be made in a day, if one is provided with good horses.

These facts comprise the principal observations made on two somewhat hasty visits to this interesting grove. The traveler who hereafter shall attempt to investigate more fully, will find much to repay his lonely ride over the forest-trails to the isolated spot where stands this most northern known group of the largest conifers.

PROCEEDINGS OF THE SIERRA CLUB.

FIRST GENERAL MEETING.

Friday, September 16, 1892.

About two hundred and fifty members and friends of the Club met at the hall of the California Academy of Sciences, 809 Market street, San Francisco. In the absence of the President and Vice-Presidents, Professor J. H. Senger occupied the chair.

The Secretary, Mr. Wm. D. Armes, gave a brief account of the organization of the Club, the objects that it hoped to attain, and the methods to be followed in attaining them.

Mr. R. M. Price read a paper narrating a trip that he had recently made through the Grand Cañon of the Tuolumne from Soda Springs to the Hetch-Hetchy. (See page 9.)

Mr. W. W. Price described a hitherto unreported grove of Sequoias, north of those heretofore generally known. (See page 17.)

Mr. Mark B. Kerr gave an account of his attempt to reach the summit of Mt. St. Elias, illustrating his remarks with very interesting lantern-slides.

SECOND GENERAL MEETING.

Friday, October 14, 1892.

Between five and six hundred persons assembled in Pioneer Hall to listen to a lecture by Major J. W. Powell, Chief of the United States Geological Survey, on the exploration of the Grand Cañon of the Colorado. The lecture was of thrilling interest, and for over two hours Major Powell held the closest attention of his audience.

Before the lecture Professor Senger explained the provisions of the Caminetti bill, and it was announced that the Club would soon take action in regard to it.

THIRD GENERAL MEETING.

Saturday, November 5, 1892.

Owing to a combination of unfortunate circumstances, there was a comparatively small attendance at this meeting, not over one hundred and fifty being present. President Muir being absent, Vice-President Olney occupied the chair.

The following were proposed by the Directors for Honorary Membership in the Club, and were unanimously elected: Professor John Tyndall; Edward Whymper, Esq.; Secretary John W.

Noble; Senator Paddock; Major J. W. Powell, Chief of the United States Geological Survey; General A. W. Greeley; B. C. Fernow, Chief of United States Division of Forestry; R. U. Johnson, Esq., associate editor of The Century Magazine; Professor J. D. Whitney, and Clarence King, Esq.

The provisions of the Caminetti bill to curtail the Yosemite National Park were set forth by Professor Senger, Congressman Caminetti, who was invited to be present, being prevented from attending by illness in his family. Mr. J. M. Hutchings and Dr. J. T. McLean spoke against the bill, and the Club passed a resolution directing the Board of Directors to prepare a memorial to Congress against it, and to use every effort to defeat it.

Mr. Willard D. Johnson explained the purposes of the proposed topographical survey of the State, and it was voted that the Club use its influence in favor of the passage of the bill providing that the State co-operate with the general Government in carrying on the work.

Rev. J. K. McLean, D.D., read a picturesque, descriptive paper on Late October on the Upper Sacramento that was duly appreciated by the Club. (The paper will appear in the next Bulletin.)

An analysis of the Paddock Forestry bill was given by the Secretary, and the Club passed a motion authorizing the Directors to prepare a memorial to Congress in favor of the bill.

Professor Joseph Le Conte closed the meeting with an eloquent statement of the benefits to be derived from mountaineering during the summer months, and a vivid description of the great Sequoia forest that formerly stretched all along the Pacific Coast.



